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- (74) Agents: EITAN, PEARL, LATZER & CO-HEN-ZEDEK et al.; 2 Gav Yam Center, 7 Shenkar Street, 46725 Herzlia (IL).

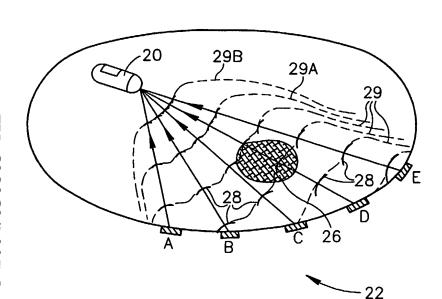
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(54) Title: DEVICE, SYSTEM AND METHOD FOR TRANSFER OF SIGNALS TO A MOVING DEVICE

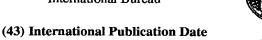


(57) Abstract: A system for transfer of a signal, such as an energizing signal, to a transmitting in vivo sensing device. The in vivo device includes at least one signal transmitter and at least one signal receiving unit. The system includes an external phased array antenna. The phased array antenna receives a signal from the sensing device and then transmits a signal to the device phased in the reverse order to that of receipt of the signal from the sensing device.

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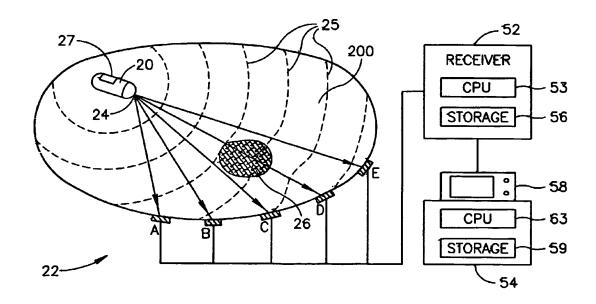
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(57) Abstract: A system for transfer of a signal, such as an energizing signal, to a transmitting in vivo sensing device (20). The in vivo device (20) includes at least one signal transmitter (24) and at least one signal receiving unit (27). The system includes an external phased array antenna (22). The phased array antenna (22) receives a signal from the sensing device (20) and then transmits a signal to the device (20) phased in the reverse order to that of receipt of the signal from the sensing device (20).





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C. DOCUMENTS CONSIDERED TO BE RELEVANT						
Category *	Citation of document, with indication, where a			Relevant to claim No.		
Y	· · · · · · · · · · · · · · · · · · ·					
Y, P	Y, P US 6,632,175 B1 (MARSHALL) 14 October 2003, see entire document.					
Y, E US 6,690,963 B2 (BEN-HAIM ET AL) 10 February 2004, see entire document.				1-32		
Y, E US 6,689,056 B1 (KILCOYNE ET AL) 10 February 2004, see entire document.			1-32			
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